

FEB. 1. 2006 2:31PM

CBL&H 202 293 6229

RECEIVED
CENTRAL FAX CENTER

NO. 1173 P. 1/16

FEB 01 2006

FAX TRANSMISSION

DATE: February 1, 2006

PTO IDENTIFIER: Application Number 09/240,632-Conf. #7584
Patent Number

Inventor: Yutaka Murakami et al.

MESSAGE TO: US Patent and Trademark Office

FAX NUMBER: (571) 273-8300

FROM: CONNOLLY BOVE LODGE & HUTZ LLP

Morris Liss

PHONE: (202) 331-7111

Attorney Dkt. #: 20402-00568-US

PAGES (Including Cover Sheet): 16

CONTENTS: Fee Transmittal (1 page)
Information Disclosure Statement with Certification and Petition (w/ SB/08) (3 pages)
Appl. No. 10/256,202 Nov. 1, 2005 Office Action (10 pages)
Charge \$130 to deposit account 22-0185
Certificate of Transmission (1 page)

If your receipt of this transmission is in error, please notify this firm immediately by collect call to sender at (202) 331-7111 and send the original transmission to us by return mail at the address below.

This transmission is intended for the sole use of the individual and entity to whom it is addressed, and may contain information that is privileged, confidential and exempt from disclosure under applicable law. You are hereby notified that any dissemination, distribution or duplication of this transmission by someone other than the intended addressee or its designated agent is strictly prohibited.

CONNOLLY BOVE LODGE & HUTZ LLP
1990 M Street, N.W., Suite 800, Washington, DC 20036-3425
Telephone: (202) 331-7111 Facsimile: (202) 293-6229

FEB. 1. 2006 2:32PM

CBL&H 202 293 6229

RECEIVED
CENTRAL FAX CENTER

NO. 1173 P. 2/16

FEB 01 2006

PTO/SB/97 (09-04)

Approved for use through 07/31/2008. OMB 0651-0031
GSA GEN-FR-02

4. U. S. Patent and Trademark Office: All U. S. Patent and Trademark Office forms require a response. If a form does not display a valid OMB control number, do not respond.

Under the Paperwork Reduction Act of 1995, no per-

Attorney Docket No.: 20402-00568-US

Certificate of Transmission under 37 CFR 1.8

I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office.

on February 1, 2006
Date

Signature

Lisa Hawkins
Typed or printed name of person signing Certificate

Registration Number, if applicable

(202) 331-7111

Note: Each paper must have its own certificate of transmission, or this certificate must identify each submitted paper.

Fee Transmittal (1 page)
IDS with Certification and Petition (w/ SB/08) (3 pages)
Appl. No. 10/256,202 Nov. 1, 2005 Office Action (10 pages)
Charge \$130 to deposit account 22-0185

FEB. 1. 2006 2:32PM

CBL&H 202 293 6229

RECEIVED
CENTRAL FAX CENTER

NO. 1173 P. 3/16

FEB 01 2006

PTO/SB/17 (12-04v2)

Approved for use through 1/31/2006. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no person are required to respond to a collection of information unless it displays a valid OMB control number.

| | | | |
|---|--|--------------------------|------------------------|
| Effective on 12/08/2004. Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818). | | Complete if Known | |
| FEE TRANSMITTAL For FY 2005 | | Application Number | 09/240,632-Conf. #7584 |
| <input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27 | | Filing Date | February 1, 1999 |
| TOTAL AMOUNT OF PAYMENT (S) 130.00 | | First Named Inventor | Yutaka Murakami |
| | | Examiner Name | C. M. Fan |
| | | Art Unit | 2634 |
| | | Attorney Docket No. | 20402-00568-US |

| | | | | | |
|--|--------------------------------------|---|---------------------------------|---|--|
| METHOD OF PAYMENT (check all that apply) | | | | | |
| <input type="checkbox"/> Check | <input type="checkbox"/> Credit Card | <input type="checkbox"/> Money Order | <input type="checkbox"/> None | <input type="checkbox"/> Other (please identify): _____ | |
| <input checked="" type="checkbox"/> Deposit Account | | | Deposit Account Number: 22-0185 | Deposit Account Name: Connolly Bove Lodge & Hutz LLP | |
| For the above-identified deposit account, the Director is hereby authorized to: (check all that apply) | | | | | |
| <input type="checkbox"/> Charge fee(s) indicated below | | <input type="checkbox"/> Charge fee(s) indicated below, except for the filing fee | | | |
| <input type="checkbox"/> Charge any additional fee(s) or underpayment of fee(s) under 37 CFR 1.16 and 1.17 | | <input checked="" type="checkbox"/> Credit any overpayments | | | |

FEE CALCULATION**1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

| Application Type | FILING FEES | | SEARCH FEES | | EXAMINATION FEES | |
|------------------|-------------|-----------------------|-------------|-----------------------|------------------|-----------------------|
| | Fee (\$) | Small Entity Fee (\$) | Fee (\$) | Small Entity Fee (\$) | Fee (\$) | Small Entity Fee (\$) |
| Utility | 300 | 150 | 500 | 250 | 200 | 100 |
| Design | 200 | 100 | 100 | 50 | 130 | 65 |
| Plant | 200 | 100 | 300 | 150 | 160 | 80 |
| Reissue | 300 | 150 | 500 | 250 | 600 | 300 |
| Provisional | 200 | 100 | 0 | 0 | 0 | 0 |

2. EXCESS CLAIM FEES**Fee Description**

Each claim over 20 (including Reissues)

Small Entity Fee (\$)

50 25

Each independent claim over 3 (including Reissues)

200 100

Multiple dependent claims

360 180

| | | | |
|--------------|--------------|----------|---------------|
| Total Claims | Extra Claims | Fee (\$) | Fee Paid (\$) |
| 13 | - 20 = | x | = |

Multiple Dependent Claims

| | |
|----------|---------------|
| Fee (\$) | Fee Paid (\$) |
| _____ | _____ |

| | | | |
|---------------|--------------|----------|---------------|
| Indep. Claims | Extra Claims | Fee (\$) | Fee Paid (\$) |
| 3 | - 3 = | x | = |

Multiple Dependent Claims

| | |
|----------|---------------|
| Fee (\$) | Fee Paid (\$) |
| _____ | _____ |

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

| | | | | |
|--------------|--------------|--|----------|---------------|
| Total Sheets | Extra Sheets | Number of each additional 50 or fraction thereof | Fee (\$) | Fee Paid (\$) |
| - 100 = | /50 | (round up to a whole number) x | = | Fee Paid (\$) |

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

| | | | | |
|-----|---|---|---|---------------|
| 180 | 3 | 6 | = | Fee Paid (\$) |
|-----|---|---|---|---------------|

RECEIVED
CENTRAL FAX CENTER

FEB 01 2006

Docket No.: 20402-00568-US
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Yutaka Murakami et al.

Application No.: 09/240,632

Confirmation No.: 7584

Filed: February 1, 1999

Art Unit: 2634

For: MODULATION METHOD AND RADIO
COMMUNICATION SYSTEM

Examiner: C. M. Fan

**INFORMATION DISCLOSURE STATEMENT
WITH CERTIFICATION AND PETITION
(37 CFR 1.56 AND 1.97-1.98)**

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 CFR 1.97(b)(3) and in an effort to comply with applicants' duty of disclosure under 37 CFR 1.56, the following information is hereby brought to the attention of the Examiner.

Certification (37 CFR 1.97(d) and (e))

I hereby certify that each item of information contained in this Disclosure Statement was recently discovered within three months. The reference was cited in an Office Action in a related application (Serial No. 10/256,202) not more than three months prior to the filing of this Statement. The Office Action was mailed November 1, 2005. A copy of said Office Action is enclosed herewith.

02/02/2006 MBINAS 00000020 220185 09240632
01 FC:1464 130.00 DA

443766

Application No.: 09/240,632

Docket No.: 20402-00568-US

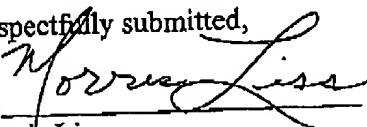
Petition (37 CFR 1.97(d))

It is believed that all the requirements of 37 CFR 1.97 (d) have been satisfied. It is therefore respectfully requested that this Disclosure Statement and the enclosed references be considered and made of record.

Please charge our Deposit Account No. 22-0185 in the amount of \$130.00 covering the fee set forth in 37 CFR §§ 1.97(d) and 1.17(i). The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 22-0185, under Order No. 20402-00568-US. A duplicate copy of this paper is enclosed.

2-1-2006
Dated: January 31, 2006

Respectfully submitted,

By 
Morris Liss

Morris Liss
Registration No.: 24,510
CONNOLLY BOVE LODGE & HUTZ LLP
Correspondence Customer Number: 30678
Attorney for Applicant

PTO/SB/06a/b (07-05)

Approved for use through 07/31/2006. OMB 0651-0291

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

| | | | | | |
|---------------------------------|---|----|---|------------------------|------------------------|
| Substitute for form 1449A/B/PTO | | | | Complete if Known | |
| | | | | Application Number | 09/240,632-Conf. #7584 |
| | | | | Filing Date | February 1, 1999 |
| | | | | First Named Inventor | Yutaka Murakami |
| | | | | Art Unit | 2634 |
| | | | | Examiner Name | C. M. Fan |
| | | | | Attorney Docket Number | 20402-00568-US |
| Sheet | 1 | of | 1 | | |

| U.S. PATENT DOCUMENTS | | | | | |
|--------------------------|-----------------------|--|--------------------------------|--|---|
| Examiner Initials* | Cite No. ¹ | Document Number Number-Kind Code ² (if known) | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| AA* | US-6,087,986 | | 07-11-2000 | Hiroki Shoki | |
| FOREIGN PATENT DOCUMENTS | | | | | |
| Examiner Initials* | Cite No. ¹ | Foreign Patent Document Country Code ³ -Number ⁴ -Kind Code ⁵ (if known) | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear T ⁶ |
| | | | | | |

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. *CITE NO.: Those application(s) which are marked with an single asterisk (*) next to the Cite No. are not supplied (under 37 CFR 1.98(a)(2)(iii)) because that application was filed after June 30, 2003 or is available in the IFW. *Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbol as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

| NON PATENT LITERATURE DOCUMENTS | | | | | |
|---------------------------------|-----------------------|---|--|--|----------------|
| Examiner Initials | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | | | T ² |
| | | | | | |

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.

443765

Examiner
Signature
443765

Date
Considered

FEB. 1. 2006 2:33PM CBL&H 202 293 6229

20402/00650 US

NO. 11736 CP. 7/16

3-1-06



UNITED STATES PATENT AND TRADEMARK OFFICE

ML GRP

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/256,202 | 09/27/2002 | Yutaka Murakami | 20402-00650-US | 4205 |
| 30678 | 7590 | 11/01/2005 | | |
| CONNOLLY BOVE LODGE & HUTZ LLP SUITE 800 1990 M STREET NW WASHINGTON, DC 20036-3425 | | | | |
| | | | EXAMINER | |
| | | | KIM, KEVIN | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2638 | |
| DATE MAILED: 11/01/2005 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-----------------|-----------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/256,202 | MURAKAMI ET AL. |
| Examiner | Art Unit | |
| Kevin Y. Kim | 2638 | |

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 12 August 2005.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 50-63 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 50-63 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____

Application/Control Number: 10/256,202
Art Unit: 2638

Page 2

DETAILED ACTION***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claims 50-63 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 50 and 57 each recite "estimating an channel distortion by the second modulation signal." However, ordinarily modulation signals are distorted because of non-ideal channel characteristics, this limitation is confusing. It appears that applicant may have meant to recite channel distortion *on* the second modulation signal. Correction or confirmation is required to remove indefiniteness.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 50-56 are rejected under 35 U.S.C. 102(b) as being anticipated by Seki (EP 0734132 A2, previously cited).

Claims 50 and 57.

Seki et al discloses a receiver, see Fig. 4, comprising,

Application/Control Number: 10/256,202
Art Unit: 2638

Page 3

a receiving portion (24) for receiving a quadrature base band signal including first modulation into which a second modulation signal is regularly inserted, a channel distortion estimation means (32) on the second modulation signal for generating a channel distortion estimation, a first demodulation portion (35) for extracting the first modulation signal based on the channel distortion estimation, a second demodulation portion (35) for extracting the second modulation signal.

Claims 51.

A differential encoding and decoding is well known in the art reduce bandwidth and thus would have been obvious to differentially encode the transmission signal and differentially decode and demodulate at the receiver.

Claim 52.

Since the demodulation portion (24-35) reads on "the first demodulating portion" including "a quasi synchronous detector" since it appears that the demodulation is performed synchronously.

Claims 53 and 54.

One of the modulation signals is a OPSK signal, which is subjected to "a phase shift keying." BPSK is another variation of a PSK modulation.

Application/Control Number: 10/256,202

Art Unit: 2638

Claims 55 and 56.

Another of the modulation signals is a QAM signal, a variation of which is a 16 QAM includes "at least 8 signal points."

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 57-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seki et al (EP 0734132 A2, previously cited).

Claim 57.

Seki et al discloses a receiver, see Fig. 4, comprising; a receiving portion (24) for receiving a quadrature base band signal including first modulation into which a second modulation signal is regularly inserted,

Application/Control Number: 10/256,202

Art Unit: 2638

Page 5

a channel distortion estimation means (32) on the second modulation signal for generating a channel distortion estimation, a first demodulation portion (35) for extracting the first modulation signal based on the channel distortion estimation, a second demodulation portion (35) for extracting the second modulation signal.

Seki et al fails to disclose all the subject matter as above but for "a frequency offset estimating portion." However, it is well known that a transmission signal is subject to frequency as well as phase and amplitude distortion during transmission and estimation of frequency offset is generally performed at the receiver to remove frequency distortion. Thus, it would have been obvious to one skill in the art at the time the invention was made to include a frequency offset estimation means in the receiver of Seki et al for the purpose of removing any frequency distortion of the received modulation signal as well.

Claims 58.

A differential encoding and decoding is well known in the art reduce bandwidth and thus would have been obvious to differentially encode the transmission signal and differentially decode and demodulate at the receiver.

Claim 59.

Application/Control Number: 10/256,202
Art Unit: 2638

Page 6

Since the demodulation portion (24-35) reads on "the first demodulating portion" including "a quasi synchronous detector" since it appears that the demodulation is performed synchronously.

Claims 60 and 61.

One of the modulation signals is a OPSK signal, which is subjected to "a phase shift keying." BPSK is another variation of a PSK modulation.

Claims 62 and 63.

Another of the modulation signals is a QAM signal, a variation of which is a 16 QAM includes "at least 8 signal points."

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Shoki et al (US 6,087,986) teaches different modulation for pilot signals.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Y. Kim whose telephone number is 571-272-3039. The examiner can normally be reached on 8AM -5PM M-F.

Page 7

Application/Control Number: 10/256,202

Art Unit: 2638

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on 571-272-3078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



KEVIN KIM
PATENT EXAMINER

FEB. 8. 2005 4:19PM

CBL&H 202 293 6229

NO. 2379 P. 5/5

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

PTO-902-03 (2-03)

Approved for use through 07/24/2006. OMB 0651-0052
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

| | | | |
|--|---|---|---|
| Substitute for Form 1449A/B/PTO | | Complete If Known | |
| INFORMATION DISCLOSURE STATEMENT BY APPLICANT | | | |
| (Use as many sheets as necessary) | | | |
| Sheet | 1 | of | 1 |
| | | Application Number 10/256,202-Conf. #4209 | |
| | | Filing Date September 27, 2002 | |
| | | First Named Inventor Yutaka Murakami et al. | |
| | | Art Unit 2694 | |
| | | Examiner Name C. M. Fan | |
| | | Attorney Docket Number 20402-00650-US | |

U.S. PATENT DOCUMENTS

| Examiner Initials | Cite No. ¹ | Document Number Number and Code ² (if known) | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Page, Column, Line, Where Relevant Paragraphs or Relevant Figures Appear |
|-------------------|-----------------------|--|--------------------------------|--|--|
| AA | US-5,833,421 | | 08/1999 | Alamouti et al. | |

FOREIGN PATENT DOCUMENTS

| Examiner Initials | Cite No. ¹ | Foreign Patent Document Country Code ³ Number and Code ⁴ (if known) | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Page, Column, Line, Where Relevant Paragraphs or Relevant Figures Appear |
|-------------------|-----------------------|--|--------------------------------|--|--|
| | | | | | T ⁵ |

¹EXAMINER: Initial if reference considered, whether or not citation is in conformance with USPTO 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ²Applicant's unique citation designation number (optional). ³See Kind of Citation of USPTO Patent Documents at www.uspto.gov or USPTO 601.04. ⁴Enter Office that issued the document, by the two-letter code (WIPO Standard ST.13). ⁵For Japanese patent documents, the indication of the year of the sign of the Emperor must precede the serial number of the patent document. ⁶Kind of document by the appropriate symbol as indicated on the document under WIPO Standard ST.16 if possible. ⁷Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS

| Examiner Initials | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city, editor, country where published. | T ² |
|-------------------|-----------------------|---|----------------|
| | | | |

¹EXAMINER: Initial if reference considered, whether or not citation is in conformance with USPTO 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

²Applicant's unique citation designation number (optional). ³Applicant is to place a check mark here if English language Translation is attached.

Examiner Signature *[Signature]* Date Considered 10/28/05

PAGE 5/5 * RCVD AT 2/8/2005 4:15:07 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-10 * DMS:8729306 * CSID:202 293 6229 * DURATION (mm:ss):01:30

PAGE 15/16 * RCVD AT 2/1/2006 2:18:57 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-6/36 * DMS:2738300 * CSID:202 293 6229 * DURATION (mm:ss):03:30

| | | | | |
|-----------------------------------|--|---------------------------------------|---|-------------|
| Notice of References Cited | | Application/Control No. 10/256,202 | Applicant(s)/Patent Under Reexamination MURAKAMI ET AL. | |
| | | Examiner Kevin Y. Kim | Art Unit 2638 | Page 1 of 1 |

U.S. PATENT DOCUMENTS

| * | Document Number Country Code-Number-Kind Code | Date MM-YYYY | Name | Classification |
|---|--|-----------------|--------------|----------------|
| A | US-6,087,986 | 07-2000 | Shoki et al. | 342/383 |
| B | US- | | | |
| C | US- | | | |
| D | US- | | | |
| E | US- | | | |
| F | US- | | | |
| G | US- | | | |
| H | US- | | | |
| I | US- | | | |
| J | US- | | | |
| K | US- | | | |
| L | US- | | | |
| M | US- | | | |

FOREIGN PATENT DOCUMENTS

| * | Document Number Country Code-Number-Kind Code | Date MM-YYYY | Country | Name | Classification |
|---|--|-----------------|---------|------|----------------|
| N | | | | | |
| O | | | | | |
| P | | | | | |
| Q | | | | | |
| R | | | | | |
| S | | | | | |
| T | | | | | |

NON-PATENT DOCUMENTS

(Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)

| * | | |
|---|---|--|
| | U | |
| | V | |
| | W | |
| | X | |

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Part of Paper No. 2